proportional to
the accelerator pedal releasing velocity. This impact produces on the
piezo-electric **sensor** a signal proportional to the force of the impact. The
electronic circuit analyzes the signal level, and when this signal goes beyond
a preset threshold, the **brake** lights are lit for one second if the **brake** pedal
is not activated.

Detailed Description Text - DETX (2):

In FIG. 3A a first GAS mounting possibility is shown. The **sensor** is
attached to the accelerator pedal arm 200 on the upper side 207. The human
engineering and the functioning of the accelerator pedal remain unchanged.
During normal driving, the driver's foot 202 actuates the accelerator pedal
201, tensing the spring 205 and pulling the carburetor cable 206. According to
IL 97397, the movements of the accelerator pedal produce all the time an
acceleration vector on the **sensor** 204. The acceleration vector causes a change
in an electric parameter in accelerator **sensor** 204. In the FSR version, a drop
in the electric resistance of the **sensor** occurs, while in the **piezo**-electric
version an electric charge is produced by the **piezo**-electric element. When the
change in the electric parameter of the **sensor** 204 produced by the acceleration
vector passes beyond a predetermined level, as when the driver's foot suddenly
or abruptly releases accelerator pedal 201, the electronic circuit of the GAS
activates the **brake** lights for one second.

Detailed Description Text - DETX (16):

The bending of the **sensor** 330 causes electrical parameter changes in the

sensor. In the version of the FSR, the bending of the right end 331 produces a mechanical stress between the sheets 433 and 434 (FIG. 5B). This stress causes the electrical resistance of FSR to drop. When the electrical resistance of the **sensor** 330 drops below a preset value, the electronic circuit (FIG. 4) will activate the **brake** lights for one second. In another version of the **sensor, a piezo**-electric element is used. The right side 331 of the **sensor** 330 made of materials like plastic, ceramic or other, and bends freely when the housing 310 comes to a halt.

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Brief Summary Text - BSTX (14):

Rosenberg et al., U.S. Pat. No. 4,901,055, discloses the system VDWS (FIG. 1), based on a ceramic **piezo**-electric **sensor,** preferably mounted on the floor of the vehicle. The principle of the **sensor is the piezo**-electric effect produced by the mechanical impact of the plunger. The plunger 113, mounted on the acceleration pedal arm in FIG. 1, is resting upon the **sensor** 110. When driving, the driver's foot, 100, actuating the accelerator pedal 102, separates the plunger from the sensing area of the **sensor**. When the driver's foot releases the accelerator pedal, the plunger applies an impact